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The Afrotropical species of *Aulacigaster* Macquart (Diptera: Aulacigastridae: Aulacigastrinae)

by

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ABSTRACT

The world fauna of Aulacigastridae (*sensu* D. McAlpine 1983), particularly *Aulacigaster* Macquart, is discussed, and the antennal structure of the Afrotropical species reviewed. Two new species of *Aulacigaster* are described: *africana* (Royal Natal National Park, Natal, South Africa) and *perata* (Bamenda highlands, Cameroon). A third species, based on a single damaged male from Cathedral Peak (Natal, South Africa) is left undescribed and is considered to have closer affinity with the Palaearctic species *A. leucopeza* (Meigen, 1830) than with the former two species. All three African species of *Aulacigaster* were taken at relatively high altitude (1500 m). It is possible that the southern African species have a life history comparable to that of the Holarctic species of *Aulacigaster*, which are associated with, and breed in, the sap flows of a wide variety of trees. *A. africana* sp. n. and *A. perata* sp. n. are the first named species of *Aulacigaster* and of the subfamily Aulacigastrinae from the Afrotropical Region. *Ningulus simatus* D. McAlpine, 1983 (eastern Cape, South Africa) and a second undescribed congener from eastern Zimbabwe are the only other African species of Aulacigastridae, and belong to the subfamily Neminінae. A key to the three Afrotropical species of *Aulacigaster* is presented; the distribution and affinities of these species are discussed.

INTRODUCTION

The Aulacigastridae (*sensu* D. McAlpine 1983) are a rarely encountered family of acalyptrate Diptera in the Afrotropical Region. The family now comprises three African species of *Aulacigaster* from South Africa and Cameroon (based on six specimens), two specimens of *Ningulus simatus* D. McAlpine, 1983 and one specimen of an undescribed *Ningulus* species. *Ningulus* was originally described from two localities in the eastern Cape Province of South Africa (Fig. 5), but D. McAlpine (*pers. comm.*) recently collected a second species from *Strelitzia* in the Chimanimani National Park in the eastern highlands of Zimbabwe. It is of note that Hennig (1965) considered that the Aulacigastridae have all the distinguishing features of a relict group, ie. genera with few species but unusually wide distributions.

Crosskey (1980), D. McAlpine (1978) and Colless & McAlpine (1991) placed the Aulacigastridae in the superfamily Asteioidea, which also includes the Periscelididae, Anthomyzidae, Neurochaetidae and Asteiidae in Africa. J. McAlpine (1989) placed all these families in the superfamily Opomyzoidea, the Anthomyzidae (and Opomyzidae) in the suprafamily Opomyzoinea and the remaining families in the Asteioinea. As pointed out by Mathis & Papp (1992), the number of taxa included in the Aulacigastridae and the closely related Periscelididae have fluctuated considerably, even over the last 25 years. D. McAlpine (1978 1983), Colless & McAlpine (1991) and Mathis & Papp have adopted an expanded concept of the Periscelididae and limited Aulacigastridae to *Aulacigaster* Macquart, *Nemo* and

Ningulus (the latter two genera described by D. McAlpine 1983). I concur with the opinion of these authors; the same family concept of the Aulacigastridae is adopted in this paper.

Nemo is endemic to the Australasian Region and includes six named species from the eastern Australian states of Queensland and New South Wales (D. McAlpine 1983) and one species from Papua New Guinea (D. McAlpine 1985). *Ningulus* contains only the two southern African species referred to above. *Aulacigaster africana* and *A. perata* are the first named representatives of the subfamily Aulacigastrinae from the Afrotropical Region. The subfamilies Aulacigastrinae and Neminae were characterised in great detail by D. McAlpine (1983: 59), but it is not certain that the Neminae belong in the restricted Aulacigastridae. McAlpine considered that the Aulacigastridae were the family of best fit for the Neminae, but that it was considered easier to give evidence for the distinction between Neminae and Aulacigastrinae than for uniting them in the same family.

As discussed by D. McAlpine (1978: 277), the antennal structure of Periscelididae is quite unlike that of Aulacigastridae. In the southern African species of the periscelidid genus *Stenomicra* Coquillett, the third antennal segment is relatively slender and has a basal dorsal process comparable to that figured for *Cyamops* Melander by D. McAlpine (1983: 11). The third segment is usually sharply deflexed below the hood-like second segment, which bears a conspicuous dorsal slit or indentation. In contrast, the southern African Aulacigastridae have the second antennal segment neither hood-like nor dorsally slit, and the third segment lacks a basal dorsal process. In *Ningulus* the second segment has a prominently developed inner distal margin and the third segment is very small, ovoid and rather inconspicuous in profile. In *Aulacigaster* the second segment is closely abutted with the third and lacks a lobe-like inner distal margin; the third segment is slightly pendent, being large and prominently round to ovoid in profile. The periscelidid genus *Cyamops* is not known from southern Africa, although I have seen a female from Perinet, Madagascar (in NMSA) and Sabrosky (1980) recorded the genus from Nigeria. In *Cyamops*, unlike *Stenomicra*, the third antennal segment is porrect in profile, not sharply deflexed.

MATERIALS AND METHODS

This study was based on pinned adult material of African *Aulacigaster* from the following depositories (curators in parentheses):

CNCI	— Canadian National Insect Collection, Biosystematics Research Centre, Ottawa, Canada (Dr R. Vockeroth)
NMSA	— Natal Museum, Pietermaritzburg, South Africa
TAUI	— Zoological Museum, Tel Aviv University, Israel (Dr A. Freidberg)

In addition I have examined *A. leucopeza* from Austria (NMSA), and North American material of *Aulacigaster* from Maryland and New Mexico (in NMSA) has also been seen. Only named extralimital species are referred to in the revision of Afrotropical species (see below). I have not examined any of the Central and South American species of *Aulacigaster*, although reference was made to Hennig's descriptions and species key (Hennig 1956 1969). Morphological terminology (external features) is based, with some modification, on that of D. McAlpine (1983 1985). I have used the terms of Teskey (1987) when describing postabdominal structures.

Bilaterally symmetrical features are described in the singular. The label data of the holotypes are quoted exactly as they appear; a slash (/) denotes the end of a line of print and a semicolon separates data quoted on different labels. Holotype measurements are given in square parentheses following the range for other specimens examined. Label data of non-type material (particularly dates) have been standardised.

The entire male abdomen was detached and macerated in warm potassium hydroxide, after which the postabdomen was dissected free. Features of the male terminalia were drawn under high magnification using the drawing tube of a Wild M5 stereomicroscope. Following study the abdomen and postabdomen were stored in a glycerine-filled microvial, pinned beneath the source specimen.

The wing was measured from the humeral cross-vein to the wing-tip. Structures of the male terminalia are identified in Figs 3–4. The term 'subcranial' is used in preference to 'peristomal', and refers to the region along the ventral margin of the cheek adjacent to the subcranial (buccal) cavity.

TAXONOMY

Subfamily Aulacigastrinae

Aulacigaster Macquart, 1835

Aulacigaster Macquart, 1830: 579. Type species (Palaearctic): *Aulacigaster rufitarsis* Macquart, 1835 [= *leucopeza* (Meigen, 1830)], by monotypy.

Aulacigaster now includes seven named species, which is likely to be a small fraction of the total when the genus is revised world-wide. Steyskal (1977) records an apparently undescribed species from India and additional material has been collected there by Dr A. Freidberg (Mathis, *pers. comm.*). D. McAlpine (1983) refers to an additional two species in CNCI, one or both of which could be undescribed (sp. near *plesiomorphica* and sp. near *melanoleuca*). Both *A. plesiomorphica* and *A. melanoleuca* are Neotropical (see below), as are McAlpine's species. According to D. McAlpine (*pers. comm.*), Dr W. N. Mathis is currently describing Malaysian *Aulacigaster* material from the Australian Museum's collections, although I have not seen these specimens. I have also seen 2 females of an undescribed species from Nepal (CNCI).

The type species, *Aulacigaster leucopeza* (Meigen, 1830) has been reported to be a Holarctic taxon (eg. Papp 1984). However, according to Mathis (*pers. comm.*), reports of *leucopeza* from the Nearctic Region are misidentifications and the species is restricted to the Palaearctic Region. Papp (1984) records *leucopeza* from throughout Europe, the former U.S.S.R., Afghanistan and Korea. The Nearctic fauna includes three species, all of which are undescribed, but which will be named in a forthcoming publication by Freidberg and Mathis.

Hennig (1956) described his new aulacigastrid genus *Schizochroa* on a new species (*melanoleuca*) from Costa Rica, but D. McAlpine (1983) convincingly synonymised this nominal genus with *Aulacigaster*. Hennig (1969) described an additional three Neotropical species in *Schizochroa* from Ecuador (*ecuadoriensis* and *minuta*) and Peru (*plesiomorphica*). However, the number of named Neotropical species of Aulacigastridae apparently is a small fraction of the total fauna. According to Mathis (*pers. comm.*), the Neotropical Aulacigastridae will be revised to at least 30 species and includes an undescribed new genus.

As noted above, Hennig (1965) considered the Aulacigastridae to be a relict group. It is virtually certain that the two named African *Aulacigaster* species are not comparatively recent boreal elements (ie. Pleistocene or later), as was suggested for the species of the diastatid genus *Campichoeta* Macquart (Barraclough 1992). In this paper I considered that the African *Campichoeta* species were derived from the Palaearctic fauna and dispersed into Africa via a series of highlands through Ethiopia and East Africa. The discontinuous distribution of *A. africana* and *A. perata* between South Africa and Cameroon suggests that these species represent a much older stock. This is apparently confirmed by their absence from East Africa (although much more collecting needs to be done here) and the Gondwanan-type presence of the genus in the Neotropical, Nearctic and Palaearctic Regions and restricted parts of the Oriental Region (Nepal, India and Malaysia). The African species of *Aulacigaster* now seem to be restricted to montane refugia (in or adjacent to afromontane forest).

Key to the Afrotropical species of *Aulacigaster*

1 Cheek with subcranial bristles relatively well developed, longest bristles slightly shorter and weaker than vibrissa. Thoracic mesoscutum with only 1 pair of dorsocentral bristles (anterior pair absent). Wing predominantly hyaline. [Natal, South Africa] .... Undescribed sp.

– Cheek without subcranial bristles, at most with hairs or weak setulae developed, longest vestiture about half length of vibrissa (Fig. 1). Thoracic mesoscutum with 2 pairs of dorsocentral bristles. Wing partly or predominantly brown-infuscate 2

2 Palpus well developed and elongate, subequal in length to third antennal segment. Haltere entirely white to cream. Posterior half of mesoscutum and much of scutellum glossy, lacking pruinescence. Male terminalia as in Figs 3–4. [Natal, South Africa] .... **africana** sp. n.

– Palpus reduced and short, length about half that of third antennal segment. Haltere stem pale yellow-brown and knob dark brown to black. Posterior half of mesoscutum and entire scutellum covered with brown pruinescence. Male unknown. [Bamenda highlands, Cameroon] .... **perata** sp. n.

Aulacigaster africana sp. n.

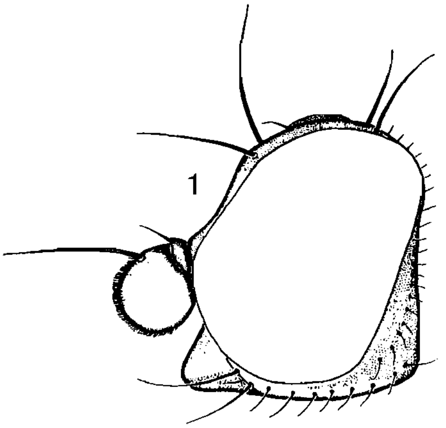
Figs 1–5

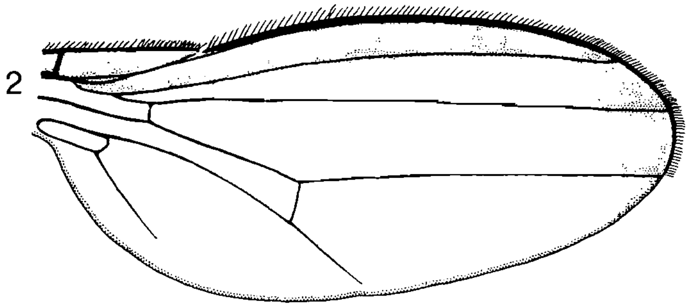
Etymology: The name refers to the African provenance of this species.

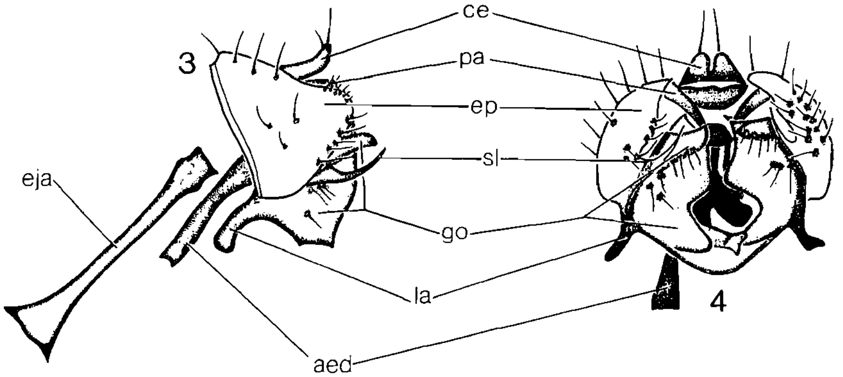
Holotype: SOUTH AFRICA: 'S AFRICA : Natal #41 / Royal Natal Nat. Park / 28°43'S:28°56'E / 1540 m / 2.ix.1992, Indig.Forest / near Tendele and Tugela / Rock ledge, Whittington'; 'HOLOTYPE ♂ / Aulacigaster / africana / BARRACLOUGH' [Rectangular card, red perimeter]. In NMSA; type number 597. In good condition.

Description:

Male: Dimensions: Thorax 1,0–1,1 (1,1) mm; wing 2,3–2,6 (2,6) mm.







Figs 1–4. Characters of *Aulacigaster africana* sp. n. 1. Head profile, showing all vestiture. 2. Wing, showing infuscation and costal vestiture. 3–4. Male terminalia (vestiture included). 3. Profile. 4. Ventral view (aedeagal apodeme omitted). [Abbreviations: aed = aedeagal apodeme; ce = cercus; eja = ejaculatory apodeme; ep = epandrium; go = gonopods; la = lateral apodeme; pa = paramere; sl = surstylic lobe.]

Coloration/Pruinescence: Frons anterior to ocellar triangle dull orange with striking silver-pruinescent fascia concealing ground colour along extreme anterior margin; pale to dark brown just posterior to fascia, contrasted with dull orange colour; pruinescence sparse and pale brown on posterior half of frons and densely silver anteriorly (at certain angles only on dull orange section), noticeably absent only on small region (half to three-quarters extent of ocellar triangle) adjacent to posterior ocellus. Antenna with first and second segments dark brown or predominantly so, arista dark brown and third segment similarly so along dorsal margin and on up to upper half in profile; pruinescence silver and most prominent along dorsal margins of first and second segments. Face and parafacial yellow-brown. Epistomal region dark brown with striking silver-pruinescent fascia extending onto lower parafacial on each side, fascia bordered with dark ground colour above and below, slightly to markedly broader than fascia on anterior margin of frons. Cheek dark yellow-brown with silver pruinescence visible at certain angles. Occiput entirely dark brown to black with silver to pale brown pruinescence, the latter more prominent on upper half. Proboscis dark brown to black, but labella cream and palpus with velvet-white appearance. Thorax entirely dark brown to black. Pleuron with relatively dense silver pruinescence, not partly glossy on sternopleuron below bristle insertion. Haltere entirely white to cream. Mesoscutum densely silver to pale brown pruinescent anterior to transverse suture and just posterior to this; humeral callus glossy around insertion of bristle, as are posterior half of mesoscutum and scutellum (extreme lateral margins excepted). Legs with coxae dark brown, mid and hind pairs paler; trochanters yellow; femora black, except yellow to brown apically on mid and hind pairs; tibiae irregularly dark (black) and pale (brown to yellow); tarsi orange-yellow, except apical 2 segments brown to black. Wing veins medium to dark brown; membrane smoky-brown infuscated, darker along costal margin and particularly apically (Fig. 2). Abdomen brown to black with silver to brown pruinescence; terga 1–2 sometimes at least partly paler.

Head (Fig. 1): Profile as figured; head and eye deeper than long. Eye with anteroventral ommatidia enlarged. Fronto-orbital bristles very closely juxtaposed in profile and without interstitial vestiture; separated by less than length of second antennal segment; anterior proclinate bristle slightly weaker and shorter than posterior reclinate bristle; anterior bristle inserted much closer to eye margin than posterior bristle (as in *A. leucopeza)*. First antennal segment concealed in profile; third segment virtually spherical. Arista inserted on dorsal margin of third antennal segment about midway along its length or slightly closer to base, very slightly sinuous apically, no apparent vestiture. Face with lower part only slightly extended onto ventral surface of head. Epistome fairly prominent in profile, reaching about apex of second antennal segment. Cheek depth very shallow in profile, about one-sixth width of third antennal segment in profile. Cheek with inconpicuous subcranial hairs along much of its length, but with well-developed bristle just below and posterior to vibrissa. Occiput with lower region moderately exposed, length of this region in profile about half that of antenna; upper half of occiput deeply excavate. Palpus well developed and elongate, subequal in length to third antennal segment.

Thorax: Mesopleuron with 3–5 setulae along posterior margin at about mid-height, 1–2 setulae longer and stronger than others. Anterior dorsocentral bristle relatively well developed, about two-thirds length of posterior bristle, inserted much closer to position of transverse suture than to posterior bristle. Subapical scutellar marginal bristles positioned relatively far apart, distance along scutellar margin between them at least 1,2 X that between each subapical and scutellar suture. Hind femur without any spines; hind and particularly fore femora swollen relative to mid femur, fore femur almost twice width of mid femur.

Wing (Fig. 2): Alula relatively well developed and anal region expansive. Subcosta desclerotised beyond point of contact with R_1. Costa without any spinules differentiated, vestiture of similar length along much of length. R_{2+3} inserted on costa about four-fifths distance between R_1 and R_{4+5}. Anal vein about 1,5 X length of anal cell. Cell r_{4+5} not narrowed apically.

Abdomen: First and second terga apparently fused. Terminalia (Figs 3–4): Cerci fused along much of length, upwardly directed and smoothly rounded apically, with prominent apical setula. Paramere relatively broad along much of length, and noticeably broader apically. Epandrium with longer setulae differentiated above in profile; surstylic lobe differentiated, elongate and sickle-shaped in profile (Fig. 3). Hypandrium with lateral apodeme relatively short, about half length of epandrium in profile (Fig. 3). Gonopods as in Fig. 4; vestiture relatively conspicuous. Ejaculatory apodeme unusually elongate, about 1,6 X length of aedeagal apodeme.

Female: Unknown.

Material examined: SOUTH AFRICA: *Natal*: Paratypes: 2 ♂, same data as holotype (NMSA). Other material: 1 ♂, same data as holotype (antennae and 2 legs missing) (NMSA).

Discussion: *Aulacigaster africana* has closest affinity with *A. perata* from Cameroon (see species key). It is rapidly diagnosed from the Palaearctic species *A. leucopeza* (character states in parentheses) as follows: cheek depth very shallow, much less than half width of third antennal segment in profile (depth not shallow, noticeably more than half width of segment); subcranial vestiture reduced to hairs/setulae, much shorter than vibrissa (subcranial bristles well developed, some subequal in length to vibrissa); scutellum and mesoscutum posterior to transverse suture glossy, almost entirely lacking pruinescence (mesoscutum and scutellum entirely pruinescent); wing membrane smoky-brown infuscated (predominantly hyaline).

Aulacigaster africana was collected from a shaded sandstone ledge. The ledge was part of a large rock formation adjacent to low, southeasterly facing montane forest on the banks of the Tugela River at Tendele camp in the Royal Natal National Park (Fig. 5). The specimens were taken at 07h30 in early spring (3 September 1992), before the onset of seasonal rains. Specimens were quite abundant on rocky surfaces at the time and much more material could have been collected. Very little other insect activity was noted, given that much of the forest and rocky ledges were poorly illuminated in the early morning sun. I believe it possible that *Aulacigaster africana* retreats to such rocky ledges and crevices during the night, but feeds at the sap flows of trees during the day in this, and probably other similar forests in the Natal Drakensberg.

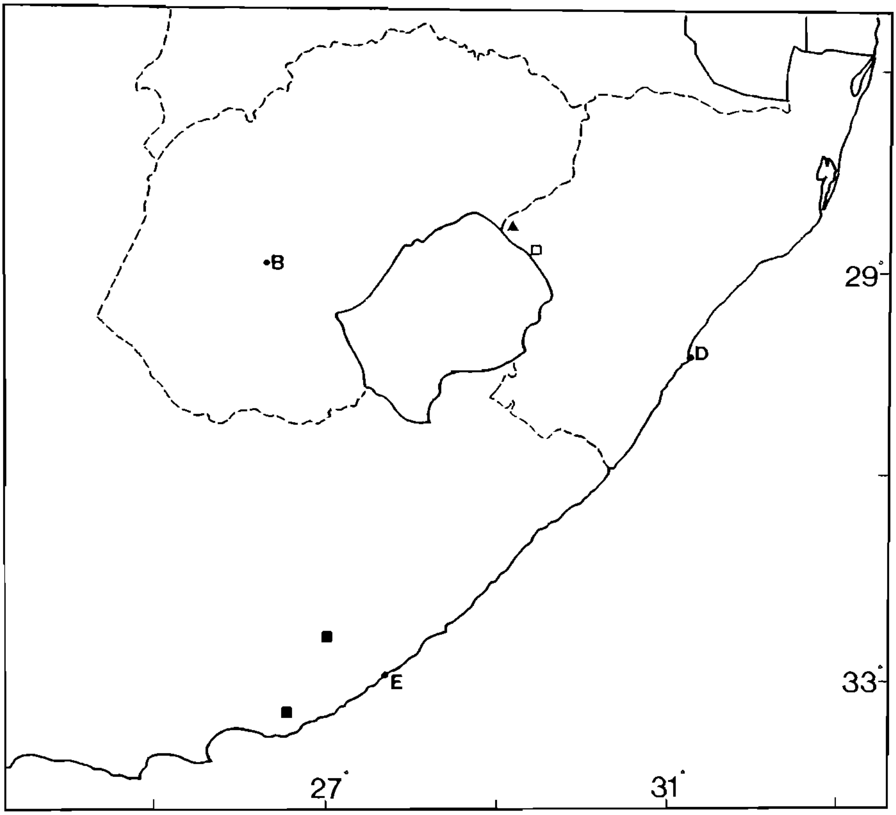


Fig. 5. Map showing distribution of Aulacigastridae in South Africa: *Ningulus simatus* McAlpine, 1983 (■), *Aulacigaster africana* sp. n. (▲) and *A.* sp. undescribed (☐) [D = Durban; E = East London; B = Bloemfontein.]

It is of particular interest that *A. africana* was collected in early spring (*A. perata* and the undescribed species were taken in late spring and early summer respectively). The widespread Palaearctic species *A. leucopeza* and North American *Aulacigaster* have been collected most commonly in spring or early summer in, for example, the United Kingdom (Robinson 1953) and Oregon, U.S.A. (Davis & Zack 1978). At such times, adults have been found visiting sap flowing from the wounds of a wide variety of trees (Teskey 1976 1987). According to Steyskal (1977) adults are attracted to such sap flows. Robinson (1953) noted how adults mated in early summer and laid eggs either singly or in small groups on projections of sap flow. The three larval instars develop in the sap and pupation also takes place there (Robinson 1953). As sap flows consist of tree sap and a range of micro-organisms (Cole & Streams 1970), it is thought that the micro-organisms and not the sap provide larval sustenance, this theory supported by the presence of ventral pharangeal ridges in the cephalopharyngeal skeleton of the larva (Ferrar 1987: 800). Davis & Zack (1978) believe that pupation is initiated by the drying up of sap in autumn and that North

American *Aulacigaster* overwinter in the puparium or as pharate adults. Teskey (1987) considers that larvae are unlikely to be injurious to host trees.

Aulacigaster perata sp. n.

Etymology: Gr. *perate* = west; refers to the presence of this species in Cameroon, West Africa.

Holotype: CAMEROON: 'CAMEROON / 50Km E. Bamenda / off Rt.N11 / Bambalang Area [5°53'N:10°23'E] / 21.XI.1987 / FINI KAPLAN'; 'HOLOTYPE ♀ / Aulacigaster perata / BARRACLOUGH' [Rectangular card, red perimeter]. In TAUI. In good condition.

Description:

Female (male unknown): Dimensions: Thorax (0,9) mm; wing (1,9) mm.

Coloration/Pruinescence: Frons anterior to ocellar triangle fairly bright orange with moderately silver-pruinescent fascia (dark ground colour beneath) along extreme anterior margin; dark brown just posterior to fascia, contrasted with orange colour; pruinescence sparse and pale brown on posterior half of frons and densely silver anteriorly (at certain angles only on orange section), noticeably absent only on region (subequal in extent to ocellar triangle) adjacent to posterior ocellus. Antenna with first segment pale, second segment partly medium brown, arista dark brown and third segment indistinctly brown along extreme upper margin; pruinescence indistinct, silver. Face and parafacial yellow. Epistomal region dark brown with striking silver-pruinescent fascia extending onto lower parafacial on each side, fascia bordered with dark ground colour above and below, subequal in width to fascia on anterior margin of frons. Cheek yellow on about anterior half, contrasted with dark ground colour posteriorly, silver pruinescence visible at certain angles. Occiput entirely dark brown to black with silver to brown pruinescence, the latter more prominent on upper half. Proboscis dark brown to black, but labella cream and palpus with velvet-white appearance. Thorax entirely dark brown to black. Pleuron with fairly conspicuous silver pruinescence, but mostly glossy on sternopleuron. Haltere stem pale yellow-brown, contrasted with dark brown to black knob. Mesoscutum densely silver to brown pruinescent over entire surface (extreme anterior margin excepted); humeral callus and scutellum entirely pruinescent. Legs with coxae variably coloured, fore pair yellow-brown to medium brown, mid and hind pairs paler (entirely yellow-brown); trochanters yellow-brown; femora all entirely brown to black; tibiae almost entirely dark brown to black; tarsi yellow-brown, except apical 2–3 segments brown to black. Wing veins medium to dark brown; membrane brown infuscated, not noticeably darker along costal margin or apically. Abdomen brown to black with silver to brown pruinescence; terga 1–2 not partly paler.

Head: Profile similar to *africana* (Fig. 1). Eye with anteroventral ommatidia enlarged. Fronto-orbital bristles as in *africana*. Antenna, arista and face similar to *africana*. Epistome in profile reaching to about apex of second antennal segment, slightly less prominent than in *africana*. Cheek depth very shallow in profile, about one-fourth to one-fifth width of third antennal segment in profile. Cheek with fairly conspicuous subcranial setulae along much of its length, but with well-developed bristle just below and posterior to vibrissa. Occiput as in *africana*. Palpus reduced and short, at most half length of third antennal segment.

Thorax: Mesopleuron with 1 short setula on posterior margin at about mid-height. Anterior dorsocentral bristle as in *africana*. Subapical scutellar marginal bristles positioned closer together than in *africana*, distance along scutellar margin between them slightly less than distance between each subapical and scutellar suture. Hind femur without any spines; development of femora comparable to *africana*.

Wing: Similar to *africana*.

Abdomen: First and second terga apparently fused as in *africana*. Postabdomen not dissected from holotype (only known specimen).

Discussion: Based on external characters (the male terminalia have not been examined), *A. perata* has closest affinity with *africana* (see species key). As with *africana* it is rapidly diagnosed from *leucopeza*, but unlike *africana* both *perata* and *leucopeza* have the mesoscutum and scutellum entirely pruinescent. Although *perata* is known from a single female, I have described it because it is the only known specimen from equatorial Africa and further collecting in the highlands of Cameroon is unlikely.

Although the altitude at which the holotype was taken is not indicated on its label, it seems that it is at least 1500 m. I have been able to ascertain this from Kingdom's (1990: 169) map of the Cameroon highlands. The type locality of *perata* (50 km E. Bamenda) is part of an extensive highland region, reaching 500 km to the northeast.

Undescribed sp.

Material examined: SOUTH AFRICA: *Natal*: 1 ♂, Cathedral Peak For. Sta., 75 km WSW. Estcourt, 7–31.xii.1979, S. & J. Peck, 1500 m (CNCI).

Discussion: The above male is a new species, which I have left undescribed because of its poor condition. Although glued to the side of a pin, the specimen had originally been collected into ethanol, has many bristles missing and has a marked vertical thoracic fracture adjacent to the right wing. It was collected only about 30 km southeast of the type locality of *africana*.

An interesting point is that the undescribed species was collected during December in mid-summer, unlike *africana* which was taken at the beginning of September in early spring (ie. before the commencement of the annual rains). It is therefore possible that the two Natal species of *Aulacigaster* utilise the sap flows of different tree species.

This species is easily distinguished from both of the other African congeners, namely *C. africana* and *C. perata* (see species key above), and clearly has closer affinity with the Palaearctic *C. leucopeza*, the only other named Old World species of *Aulacigaster*. The head is comparable in both facies and colour to that of *leucopeza* and both species have the cheek depth more extensive than that of *africana* and *perata*. Unlike the latter two species, *leucopeza* and the undescribed species also have relatively well-developed subcranial bristles. The thorax and legs of *leucopeza* and the undescribed species have comparable colour/pruinescence and the wings are similarly hyaline; apparent distinctions in the colour of the tibiae and of the mesoscutal pruinescence can only be confirmed following the examination of longer series of each taxon. However, unlike *leucopeza*, the undescribed species lacks the anterior dorsocentral bristle. I have compared the male terminalia of the undescribed species with those of *leucopeza* and have found them to be distinctive. The most striking differences are in the shape of the cerci, position of the surstylus, profile shape of the epandrium and the form/development of the gonopods.

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